Remarks

Claims 2, 6-21, 25 and 26 are pending in the application. Claims 7, 10, 12, 15, 18, 25 and 26 are currently amended. Claim 22 has been canceled. Claims 2, 6-22, 25 and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsuoka (US 5,443,404) in view of Weber et al. (US 4,790,763). In view of the following remarks, reconsideration and withdrawal of these grounds of rejection is requested.

Claim Objections

Claim 22 is objected to under 37 CFR 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim (Claim 18, from which it depends). Claims 25 and 26 are objected to as being in improper form because they depend on canceled Claim 24. Claim 22 is no longer of issue as it has been canceled by this amendment. Claim 25 has been currently amended to depend from Claim 18. Claim 26 depends from Claim 25. Thus, reconsideration and withdrawal of this objection is respectfully requested.

Claim Rejections Under 35 U.S.C. § 103

Claims 2, 6-22, 25 and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsuoka (US 5,443,404) in view of Weber et al. (US 4,790,763). Claim 22 has been canceled by this Amendment, and thus only claims 2, 6-21, 25 and 26 are at issue here. In view of the following remarks, reconsideration and withdrawal of this ground of rejection is respectfully requested.

The Applicant discloses, in an exemplary embodiment, a first header which includes a

retention arm which protrudes from the header and includes a first ridge and a second header which includes an opening into which the retention arm may be inserted. (See e.g., Specification, page 8, second paragraph, and Fig. 4). The opening of the second header includes a second ridge corresponding to the first ridge on the retention arm of the first header.

Independent Claim 7 now recites:

> A connector assembly comprising:
>
> a first housing having a retention arm, said retention arm including a longitudinal portion and a perpendicular portion, said perpendicular portion including a first ridge; and
>
> a second housing having an opening for receiving the retention arm, said second housing including a second ridge within the opening, said retention arm being moved initially to a first direction in said opening and then in a different second direction in said opening, wherein the first ridge and the second ridge move toward and then past one another, so as to be fixedly engaged to hold the retention arm in the opening,
>
> wherein the first housing and the second housing each have a lower side for connecting to a printed circuit board (PCB),
>
> wherein at least one of the lower sides includes non-electrically conductive guide pins for aligning the first housing and the second housing with the PCB; and,
>
> wherein the retention arm can move longitudinally within the opening from a point where the first ridge and the second ridge engage to a point where the retention arm abuts an end of the opening so as to ensure the proper alignment of the guide pins with the PCB. (emphasis added).

Thus, claim 7 now requires an assembly including a first housing with a retention arm having a perpendicular portion including a first ridge and a second housing with an opening for receiving the retention arm including a second ridge within the opening. Further, as described in the Specification, on page 8, second paragraph, the retention arm 420 is initially moved in a first direction, i.e., in a perpendicular direction, until completely inserted in the main shaft 444, and then moved in a different second direction, i.e., in a longitudinal direction, until the ridge 426 moves past the ridge 448, and into a fixed position. The first and second ridges fixedly engage one another to hold the retention arm in the opening. As such, the first and second ridges hold the retention arm in the

opening when, for example, horizontal or vertical forces are applied to the first and second housings of the assembly. As discussed below, the combination of Matsuoka and Weber fails to disclose or suggest such an invention.

Matsuoka teaches an upwardly directing engagement piece 12 of the engagement element 8b of a first socket body that is engaged by a downwardly directing engagement piece 11 of the engagement element 8a of an adjacent socket body. (See Col. 3, lines 1-6). The "hook-like" engagement elements 8a and 8b are brought into engagement when the socket bodies are inserted into through-holes 13 of, and adjacently arranged in a row of a wiring board 7. (See Col. 3, lines 16-20).

Matsuoka fails to disclose, teach or suggest a first housing with a retention arm having a perpendicular portion including a first ridge and a second housing with an opening for receiving the retention arm including a second ridge within the opening. The "hook-like" engagement elements 8a and 8b of Matsuoka associate with each other by moving only in a first direction, rather than by moving in an engaging first direction and a different engaging second direction, and thus do not fixedly engage one another. As such, the engagement elements 8a and 8b cannot secure the adjacent socket bodies with respect to each other or with respect to the wiring board after they are inserted into the through-holes. Therefore, the engagement elements do not protect the socket bodies from movement and possible disengagement from the wiring board due to, for example, expansion of the socket bodies or applied vertical/horizontal forces. Further, the application of multiple engagement elements, as the Examiner suggests in view of Weber, would not disclose, teach or suggest what the Applicant discloses. Accordingly, reconsideration and withdrawal of this rejection with respect to

independent claim 7 and claims 2, 6, 8-11, which depend from claim 7, is respectfully requested.

Independent claims 12, 15 and 18 now include limitations requiring an assembly including a first housing with a retention arm having a perpendicular portion including a first serrated ridge and a second housing with an opening for receiving the retention arm including a second serrated ridge within the opening, wherein the first and second serrated ridges fixedly engage one another to hold the retention arm in the opening. Matsuoka fails to disclose, teach or suggest a male connection mechanism comprising a retention arm including a first serrated ridge and a female connection mechanism comprising an opening for receiving the retention arm including a second serrated ridge. Hence, reconsideration and withdrawal of this ground of rejection with respect to claims 12-22, 25 and 26 is also respectfully requested. Claims 12 and 18 have further been amended to recite the aspect that the retention arm of the male connection mechanism is initially moved in a first direction in the opening of the female connection mechanism, and then moved in a different second direction, which results in the first and second serrated ridges moving toward and then past one another, in order to be fixedly engaged.

Claims 10, 25 and 26 have been currently amended for consistency in accordance with the amendments to independent claims 7, 12, 15 and 18 above. In amended claim 10, the first housing includes a stop for keeping the first serrated ridge aligned with the second serrated ridge.

Therefore, for those reasons discussed above, reconsideration and withdrawal of this ground of rejection is respectfully requested.

Conclusion

In view of the foregoing remarks, Applicants submit that this application is in condition for allowance at an early date, which action is earnestly solicited.

Respectfully submitted,

Paul A. Taufer
Reg. No. 35,703
Andrew A. Noble
Reg. No. 48,651

DLA Piper Rudnick Gray Cary US LLP
One Liberty Place
1650 Market Street, Suite 4900
Philadelphia, PA 19103
Phone: 215.656.3303

PAT/AAN:pam